

CLAIMS

What is claimed is:

1. A method of generating a calibration target on a medium comprising:
5 inserting the medium into a printer with a first orientation;
 printing a first calibration feature at a first lateral location on the
medium;
 reinserting the medium into the printer with a second orientation
rotated 180 degrees from the first orientation; and
10 printing a second calibration feature at a second lateral location on
the medium.
2. The method of claim 1, wherein the first calibration feature comprises
a longitudinally oriented line and wherein the second calibration feature
comprises a longitudinally oriented line.
- 15 3. The method of claim 1, wherein the first and second calibration
features are printed at an substantially identical position relative to a center line of
the printer so that the first and second calibration features are located
substantially laterally symmetrically about a center line of the medium.
- 20 4. The method of claim 1, comprising the step of printing a directional
indicator prior to the reinserting step showing the second orientation for
reinsertion of the medium.
5. The method of claim 1, wherein the first and second calibration feature
are printed on a same face of the medium.
6. A calibration target produced by the method of claim 1.
- 25 7. A method of calibrating a scanner comprising:
 locating a first position of a first calibration feature on a medium;
 locating a second position of a second calibration feature on the
medium; and
 adjusting a lateral calibration characteristic based on the first
30 position and the second position.

8. The method of claim 7, wherein the step of adjusting a lateral calibration characteristic comprises defining a scan center line at a location equally between the first and second positions

9. A printer capable of generating a calibration target on a medium,
5 comprising:

a media feed;

a print mechanism configured to accept the medium from the media feed and print on the medium;

10 a first calibration target print mechanism configured to cause the print mechanism to print a first calibration feature at a first lateral location on the medium;

a medium reinsertion mechanism triggered by the first calibration target print mechanism configured to trigger reinsertion of the medium into the print mechanism reoriented by 180 degrees from an original orientation; and

15 a second calibration target print mechanism configured to cause the print mechanism to print a second calibration feature at a second lateral location in known relation to the first lateral location on the medium after reinsertion.

10. The printer of claim 9, wherein the medium reinsertion mechanism comprises a prompter configured to prompt reinsertion of the medium into the
20 printer.

11. The printer of claim 9, wherein the medium reinsertion mechanism comprises a feed tray configured to rotate the medium 180 degrees from the original orientation.

12. A scanner comprising:

25 a scan head;

a locator communicating with the scan head and configured to determine a first lateral feature parameter and a second lateral feature parameter of a calibration target, the first and second lateral feature parameters offset by a printer offset; and

an adjuster configured to accept the first and second lateral feature parameters from the locator and to determine a lateral calibration characteristic based in part on the first and second lateral feature parameters.

13. The scanner of claim 12, wherein the adjuster is configured to
5 determine a scan center line at a location equally between the first and second positions.

14. The scanner of claim 12, wherein the adjuster is configured to determine the lateral calibration characteristic based in part on the known lateral relation of the first and second lateral locations.

10 15. A method of generating a calibration target, comprising:
inserting a medium of a first medium size into a printer;
configuring the printer for printing on a second medium size greater than the first medium size; and
printing a first calibration feature extending past a printing limit
15 associated with the first medium size.

16. The method of claim 15, further comprising the steps of:
reinserting the medium into the printer at a second orientation reoriented by 180 degrees from an original printing orientation; and
printing a second calibration feature on the medium extending past
20 a normal printing limit toward an opposite edge of the medium so the second calibration feature extends toward the opposite edge of the medium from the first calibration feature whereby the calibration target may be used to calibrate a medium length sensitive characteristic of the scanner.

17. The method of claim 15, wherein the first calibration feature is printed
25 at a first lateral location, and the second calibration feature is printed at a second lateral location with a known relation to the first lateral location so that offset introduced by the printer appears in a substantially symmetrically opposite manner on the first and second calibration features whereby the offset may be compensated for during use of the calibration target.

18. The method of claim 16, comprising the step of printing a directional indicator showing the second orientation for reinsertion of the medium.

19. The method of claim 15, comprising the step of printing a direction indicator showing an orientation for insertion of the medium into a scanner.

5 20. The method of claim 16, wherein the first and second calibration feature are printed on a same face of the medium.

21. The calibration target produced by the method of claim 15.

22. The calibration target produced by the method of claim 16.

10 23. A method of calibrating a medium edge dependent characteristic of a scanner, the method comprising:

 feeding a calibration target into the scanner;

 determining a parameter associated with scanning of the calibration feature;

15 adjusting the medium edge dependent characteristic of the scanner based on the parameter relative to a reference value.

24. The method of claim 23, wherein the parameter is a first time associated with a passing of the calibration feature across a scan head and wherein the reference value is a second time associated with a passing of the medium past a media sensor.

20 25. A method of calibrating a medium length dependant characteristic of a scanner using a calibration target comprising a first and second calibration feature located at opposite ends of the calibration target and extended toward edges of the calibration target, the method comprising:

 feeding the calibration target into the scanner;

25 determining a first parameter associated with scanning of the first calibration feature by the scanner;

 determining a second parameter associated with scanning of the second calibration feature by the scanner;

30 calculating a medium length calibration factor based on a difference between the first and second parameter.

26. The method of claim 25, wherein the first parameter is a first time corresponding to a beginning of the first calibration feature passing across a scan head and wherein the second parameter is a second time corresponding to an end of the second calibration feature passing across the scan head.

5 27. A printer, comprising:

 a print mechanism configured to accept a medium; and
 a first calibration target print mechanism configured to cause the print mechanism to print a first calibration feature on the medium so that the first feature extends past a normal printing limit.

10 28. The printer of claim 27, further comprising

 a medium reinsertion mechanism coupled to the first calibration target mechanism and configured to trigger reinsertion of the medium into the media feed reoriented by 180 degrees from an original orientation; and
 a second calibration target print mechanism configured to cause the
15 print mechanism to print a second calibration feature on the medium after reinsertion so that the second calibration feature extends past a normal printing limit toward a second edge of the medium opposite the first edge.

 29. The printer of claim 28, wherein the medium reinsertion mechanism comprises a prompter configured to prompt reinsertion of the medium into the
20 printer.

 30. The printer of claim 28, wherein the medium reinsertion mechanism comprises a feed tray configured to rotate the medium 180 degrees from the original orientation.

 31. A scanner suitable for calibration using a calibration target comprising
25 first and second calibration features printed on a medium at opposite ends and extending toward the edges of the medium, the scanner comprising:

 a scan head;
 a locator coupled to the scan head and configured to determine a first parameter corresponding to the scanning of the first calibration feature and
30 configured to determine a second parameter corresponding to the scanning of the second calibration feature;

an adjuster configured to accept the first parameter and the second parameter from the locator and to adjust a medium length dependant characteristic of the scanner based on a difference between the first and second parameters.

5 32. The scanner of claim 34, wherein the first parameter is a first time corresponding to a beginning of the first calibration feature passing across a scan head and wherein the second parameter is a second time corresponding to an end of the second calibration feature passing across the scan head.

10 33. The scanner of claim 34, wherein the medium length dependant characteristic is an adjustment for medium stretch.

34. The scanner of claim 34, wherein the medium length dependant characteristic is an adjustment for mechanical wear in a feed of the scanner.

35. The scanner of claim 34, wherein the medium length dependant characteristic is an adjustment for medium surface characteristics.

15 36. A printer capable of generating a calibration target on a medium comprising:

 means for printing a first calibration feature at a first lateral location on the medium;

20 means for printing a second calibration feature at a second lateral location on the medium with a known relation to the first lateral location so that an offset introduced by the printer appears in a substantially symmetrically opposite manner on the first and second calibration features.

37. A printer capable of generating a calibration target on a medium comprising:

25 means for inserting a medium of a first medium size into a printer;

 means for configuring the printer for printing on a second medium size greater than the first medium size; and

 means for printing a first calibration feature extending past a printing limit associated with the first medium size.

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